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ABSTRACT

This speech describes a process through which counselors can show themselves to be accountable. This social-learning-systems approach integrates both the counseling process and the counseling outcome factors into a continuous system of input, process, outcome, and feedback geared toward behavior change. The social-learning approach is divided into five steps: (1) defining the problem in terms of behavior in specific situations; (2) specifying behavioral objectives to be reached; (3) making observations and noting the frequency of occurrence of the target behavior, its antecedents, and its consequences; (4) forming a plan of intervention by contingency reinforcement of desirable behaviors and by arrangement of situations which increase the probability of the client performing desirable behaviors; and (5) evaluating, maintaining, or adjusting and, finally, terminating the intervention program. The speech also describes celeration, a precise system of behavioral measurement which deals with the number of responses per unit of time. An instrument (the Standard Behavior Chart) utilizes these behavioral units so as to permit direct comparisons between different variables effecting behavioral change. (Author/LKP)

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SOCIAL-LEARNING-SYSTEMS APPROACH OF
ACCOUNTABILITY FOR COUNSELING

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Counseling has been variously defined in ways consonant with the theoretical persuasions of different authors. Most definitions of counseling have in common the planful management of an interpersonal process in order to increase human effectiveness (Brayfield, 1961; Blocker, 1966). Attempts to formulate precise inclusive definitions of counseling have been difficult. Gustard (1957) reviewed various definitions and placed them into three categories: (1) definitions emphasizing the role of the participants; (2) definitions emphasizing the goals of counseling, in terms of improved adjustment, higher functioning, and greater happiness; (3) definitions stressing the learning outcome in counseling.

The present ambiguous state of affairs has disturbed many serious students of counseling. The practicing counselor faces a difficult dilemma. Not only is he confronted with a multiplicity of behavioral changes he wishes to produce in his clients and with a variety of theories and techniques from which to choose his approach; but also this ambiguity leads to a crisis in accounting for behavioral change.

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Accountability Crisis

The fact that the effectiveness of counseling and psychotherapy has been questioned suggests that its results are far from dramatic; indeed, they are often equivocal and even unknown (Stuart, 1970). Ambiguity insures that each counselor is at liberty to define his therapeutic goals, which others may consider either "far reaching" or "trivial"; similarly, each counselor can define "improvement" any way he likes. Reviews of the outcome studies of counseling tend to reflect the biases of their authors (Eysemch, 1965; Cross, 1964).

The problems of controlled research in counseling are highly complex and technical, but it may be seen that meaningful comparisons of clients, techniques, and results depend on a large extent upon specification of variables and the situational context. The area of counseling will make much more rapid strides if it can find ways of utilizing the methods of science in the study of the specific behavioral changes with which it is concerned. These include systematic and controlled observation and data collection, on the one hand, and experimentation, on the other.

In a sense, practicing counselors are "experimenting" daily, since they try out different hypotheses and procedures with each client. Counseling is a natural experimental setting. Faced with the problem of changing selected behaviors, counselors explicitly or implicitly formulate hypotheses about the origin and nature of the troublesome behavior patterns and then institute procedures to produce the desired changes. After observing the effects of these procedures, the counselor alters his hypotheses and tries again.

Within this context, accountability in counseling can be defined as a method of setting goals, planning and implementing objectives on the part of the counselor, which in turn generate data used for further refinement and/or change in counseling strategies. No one component is separable from another. Data collection is determined by goals that are set mutually by the client and counselor. Decision and evaluations of success and failure grow out of an analysis of the data.

Systems Analysis in Counseling

Implementation of the accountability model described above is best accomplished through the application of a systems analysis approach to counseling. It might be helpful to outline a simple systems approach.

According to Meisgeier and Perez (1973) there are four major components of a system (See Figure 1):

- 1) The input which includes both controllable and uncontrollable variables.
- 2) The operations or process (procedures).
- 3) The outcome or product.
- 4) The Evaluation or feedback.

The program design or blueprint developed in a systems format reveals essential data to the counselor, client, and evaluator or researcher.

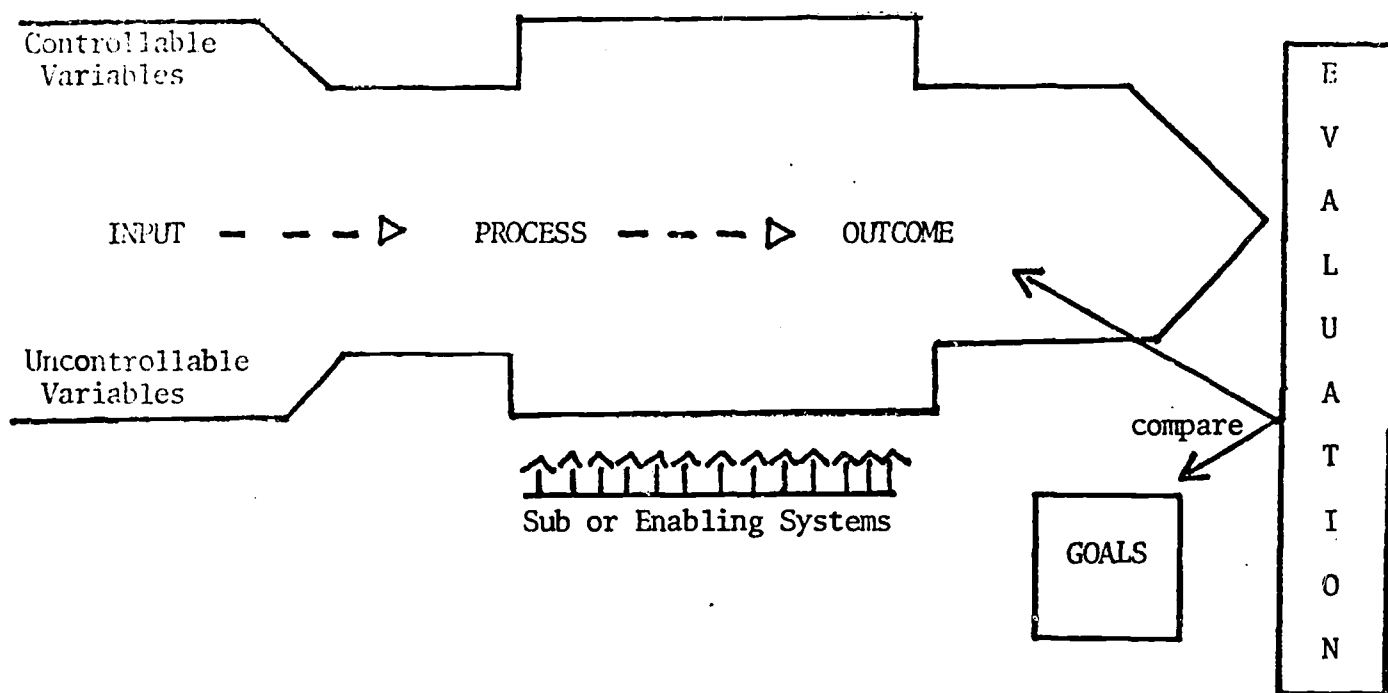


Figure 1 - Schematic of a System Analysis

Figure 1 shows a schematic of a system. Counseling can be conceptualized as a system which transforms the inputs from the counselor, client and others into outcomes or previously defined goals by the process or participation in counseling sessions. An effective evaluation model that can be overlaid upon a systems design is the discrepancy evaluation model developed by Provus (1971). This model simply compares on a continual basis the outcome (o) with the goals (G), with the difference described as the discrepancy ($O-G=D$). Applying this model to counseling we can compare changes in the behavior of the client with the goals and, if necessary, make the necessary adjustments in the process to reduce the discrepancy.

Process-Outcome Dichotomy

Traditionally, evaluation research of counseling and psychotherapy have distinguished between the process of counseling and the outcome of counseling. This dichotomy has created a misconception that takes the form: process is not outcome research, and outcome research is not process research (Kiesler, 1966). Typically, process studies have dealt with the counselor-client interaction, while outcome studies have focused on changes in the client as the result of counseling. According to Kiesler (1966) two unfortunate effects seem to have followed from this somewhat ambiguous distinction: "outcome: researchers have tended to focus exclusively on the pre-post client differentiations; and client process changes have not been considered legitimate outcome."

Social-Learning-Systems Approach

One of the major advantages of adopting a systems approach for counseling is that it integrates the process-outcome dichotomy into a continuous system of input--process--outcome--Feedback. Humans are social beings and their psychological functioning involves a continuous reciprocal interaction between behavior and its controlling conditions.

A comprehensive social-learning systems approach conceptualizes human functioning as involving interrelated control systems on which behavior is determined by external stimulus events, by internal information-processing systems and regulatory codes, and by reinforcing response-feedback processes (Bandura, 1969). In most situations, two or more of these processes may operate simultaneously in governing

responsiveness.

In the social-learning conceptual scheme man is neither an internally impelled system nor a passive reactor to external stimulation. Although actions are regulated by their consequences, the controlling environment is in turn, often significantly altered by the behavior. Man plays an active role in constructing his own reinforcement contingencies through his characteristic modes of response. His behavior is learned by interacting with his environment.

There exists ample evidence that one cannot account satisfactorily for human behavior while remaining entirely outside the organism, because overt behavior is often governed by self-generated stimulation that is relatively independent of environmental stimulus events (Krop, Perez and Beaudom, 1973). Symbolic regulation of behavior plays a central role in a social-learning approach to counseling. Homme (1965) contends that under most conditions the presence or absence of covert activities can be easily detected by the person in whom they are occurring. Persons can not only reliably discriminate internal events, but they can manipulate them by making self-reinforcement contingent upon their occurrence. Furthermore, thought-induced affective reactions may be successfully employed for purposes of controlling one's own overt behavior.

Both, overt behaviors and covert behaviors are accounted for in a social-learning systems approach. We should make more emphasis in training children and adults to discriminate internal as well as external events. Social-learning approaches treat internal processes as covert events that are manipulable and measurable. The process of behavioral

change will be conceptualized similarly no matter whether one assumes that responses are regulated predominately by external stimulus events or partly by mediating symbolic events.

Steps for Implementing a Social-Learning Systems Approach

The person's behavior--broadly defined to include cognitive, emotional, and motor expressions--is the only class of events that can be altered through psychological procedures, and therefore it is the only meaningful subject matter of counseling. Similarly, stimulus variables are the only events that the counselor can modify to effect behavioral change. Counseling, like any other social influence enterprise, is thus a process in which the counselor arranges stimulus conditions that produce desired behavioral changes in the client. In the final analysis, social-learning approaches and all other existing forms of treatment modify the same subject matter, namely, behavioral phenomena.

Most social-learning approaches follow the following steps:

- 1). Defining the problem in terms of behavior in specific situations.
- 2). Behavioral specification of objectives to be reached. If the objectives are poorly defined, the counselor has no rational basis for selecting the appropriate treatment procedures or for evaluating the effectiveness of his efforts.

- 3). Making observations and counting how often the target behavior occurs, the antecedents that precede it, and the consequences that follow it.
- 4). Forming a plan of intervention by contingently reinforcing desirable behaviors and by arranging situations to increase the probability of the client performing desirable behaviors
- 5). Evaluating, maintaining or adjusting and finally terminating the intervention program.

Crisis in Behavioral Measurement

We have previously discussed that the traditional process-outcome distinction has perpetuated the relatively exclusive use of pre-post designs in evaluating the outcome of counseling, with the unfortunate effect that information about behavioral changes or improvement between the two end points has not been obtained (Kiesler, 1966). Effective counseling presupposes continuous evaluation. What is presently needed is a system of continuous, and daily measurement of behavioral changes due to the process of counseling. In other words, we need to bridge the gap between the two end points of counseling by de-emphasizing pre-post measures of behavioral change and implementing a continuous process of behavioral measurement.

The difficulties which serious students of counseling have experienced in coming to grips with the question of accountability are

traceable to its difficulty in defining and agreeing upon suitable units and procedures of behavioral measurement. One instrument that has been shown to be sufficiently general to measure with equal sensitivity all the behaviors of which individuals or groups of individuals are capable is known as the Standard Behavior Chart (Pennypacker, Koenig and Landsley, 1972). The following section will discuss in detail this system of behavioral measurement.

A Precise System of Behavioral Measurement

In a social-learning systems approach to counseling, behavior is conceptualized as a continuous process through time. All behavior, regardless of it being overt or covert, may be defined in terms of instances of its occurrence and these instances are countable. Since countable instances of repeatable behavior must take place in time, this second parameter, time is also common to all behavior. Consequently, the combination of count and time into one unit-frequency-renders that unit universal with respect to its appropriateness as a unit of behavior measurement. Frequency (number of responses/unit of time) is the universal unit of behavioral measurement. As previously discussed, clients are asked to count how often the pinpointed behavior happen in his daily life. They are collecting daily frequencies of behavior.

Counseling is primarily concerned with changes in behavior frequencies over time. To measure these changes a measure of behavior change had to

be developed. This unit is known as celeration (Pennypacker, Koenig and Lindsley, 1972). The units of celeration are of the general form: numbers of behaviors/unit of time/unit of time. Thus, by describing changes in the universal behavior unit (frequency) over time, we have an equally universal measure of behavior change.

These two behavioral measurement units, frequency and celeration, are incorporated into an instrument known as the Standard Behavior Chart (see Figure 2). This instrument is standard in nature so as to permit direct comparisons between different variables effecting behavioral change.

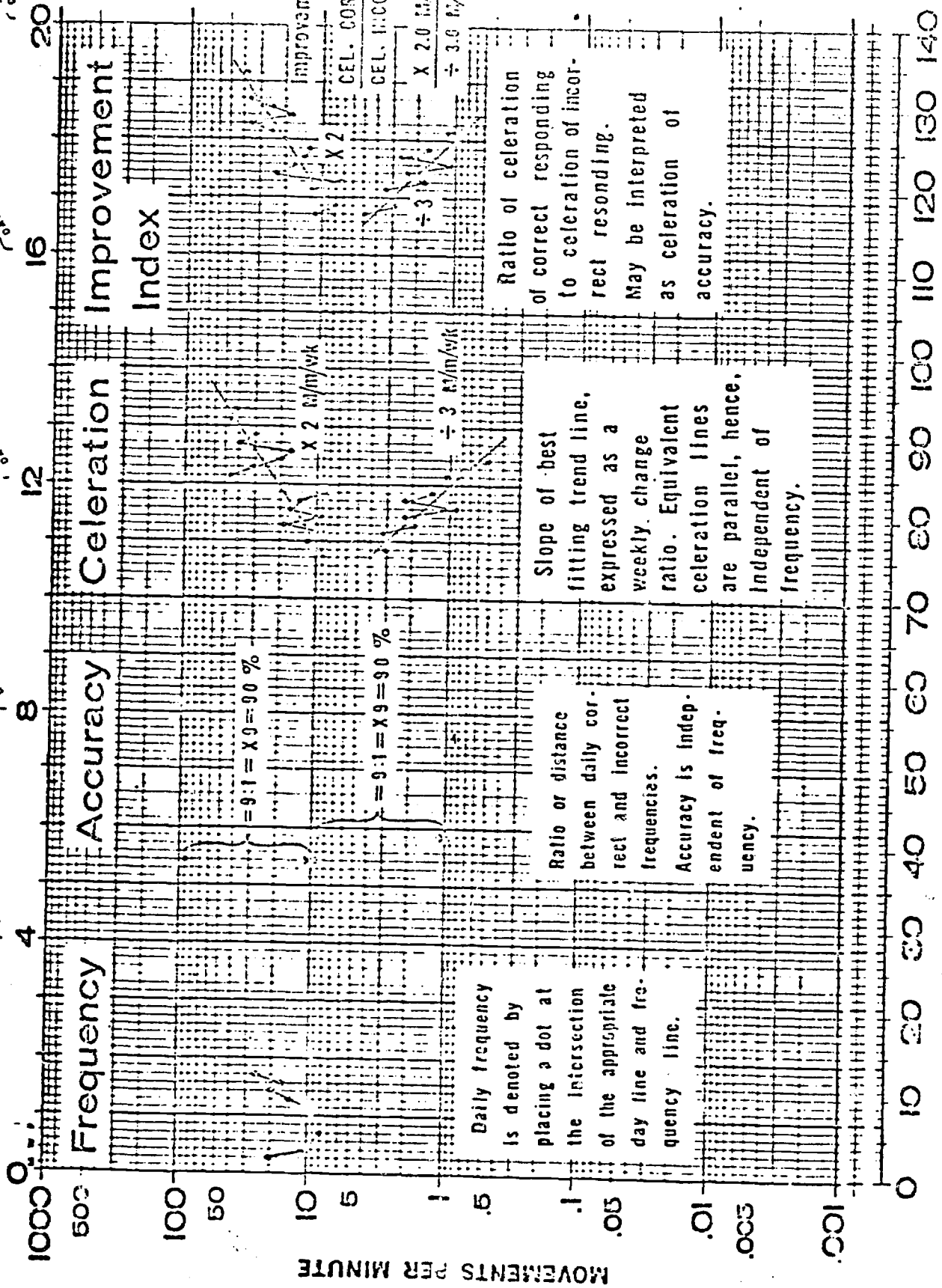
Insert Figure 2 about here

Figure 2 is a reproduction of the Standard Behavior Chart showing diagrammatically the major types of measurement afforded by its use. The lines going across the chart are frequency lines, the fundamental unit of behavioral measurement. Daily frequencies are recorded on the Standard Behavior Chart by placing a dot at the intersection of the vertical line corresponding to the proper calendar day and the horizontal line representing the frequency of the behavior observed on that day. Pennypacker, Koenig and Lindsley (1972) describe these charting conventions elsewhere.

Most behaviors are displayed on the Standard Behavior Chart as an accuracy pair. That is, the frequency with which the pinpointed or target behavior occurs is plotted along with its opposite. An example of accuracy pair is a client who is counting positive as well as

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SUPERVISOR	ADVISER	MANAGER	BEHAVIOR	AGE	LABEL	MOVEMENT
DEPARTMENT	CHARTER					

negative thoughts or feelings about himself. Panel B (see Figure 5) shows that the distance by which these two frequencies are separated provide a measure of the accuracy of the day's performance. This accuracy of the day's performance. This accuracy measure may be expressed either as a ratio, a multiple, or a percentage. Accuracy pairs provide the counselor with a sensitive measure to monitor the different combinations of changes in daily frequencies and make the necessary corrections in order to improve behavior.

Panel C illustrates a graphic representation of the celeration measure of behavior change. By fitting a straight line to a series of daily behavior frequencies, celeration may be seen to be represented by the slope of such a line. The slope of the celeration line is a measure of the ratio or percentage of change taking place over a given period of time. A convenient time unit for assessing behavior change is one week; hence celerations are usually expressed as ratios or or multiples of frequency ($\times 2$ movements/minute / week; - 5 movement/minute/week etc.). These values can also be converted to percentage. A celeration $\times 2$, for example, means that the behavior frequency is doubling each week, corresponding to a 100% weekly increase.

Panel D shows how accuracy and celeration may be combined to yield a composite measure known as the improvement index. The improvement index, defined as the ratio of the celeration of the pinpointed or target frequencies to the celeration of the opposite behavior frequencies, may be regarded as a measure of change in accuracy over time. This improvement index is independent of either celeration just as celeration and accuracy are independent of basic frequency (Pennypacker, Koenig and Lindsley, 1972).

These four measures--frequency, accuracy, celeration and improvement index--are easily obtained from the Standard Behavior Chart and provide direct measures of both the quantity and quality of behavior and behavior change needed to evaluate any counseling program for accountability purposes.

Precise Social-Learning Counseling

Effective counseling presupposes continuous evaluation. Since the Standard Behavior Chart produces continuous and direct measures of behavior, it is made an integral part of the counseling process. Both counselors and clients must therefore become proficient in its use so that it may serve as an aid in the counseling process, evaluation, decision making, and planning. Thus, the major strategy of Precise Social-Learning counselors is to introduce the evaluation process where and when it is most needed, at the level of the daily interactions of the client with his natural environment. Giving the evaluation tool directly to the client, is, then, an effort to maximize the effectiveness of the evaluation process as an integral part of the counseling process. Perez (1972) have also demonstrated that a beneficial side effect of client's charting their own behaviors is the feedback they receive. Charting by itself has been demonstrated to be an effective tool for behavioral change (Hasterok, 1972).

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